

Applicant: STEMMLER
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Please amend the above-identified application as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claim 1 (canceled)

Claim 2 (canceled)

5 Claim ~~3~~ (previously presented) The method according to Claim ~~42~~¹ in which the analyte comprises a nucleic acid.

4 Claim ~~4~~ (previously presented) The method according to Claim ~~44~~³ in which the method is an immuno-affinity assay.

6 Claim ~~5~~ (previously presented) The method according to Claim ~~42~~¹ in which the analyte determination is performed or effected in a volume of less than 1 μ l.

Claim 6 (canceled)

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (canceled)

8 Claim ~~10~~ (previously presented) The method according to Claim ~~42~~¹ in which the labeled

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competitive substance is a fluorescent labeled reagent.

9 Claim ~~11~~ (previously presented) The method according to Claim ~~42~~ in which the sample is in a liquid phase.

10 Claim ~~12~~ (previously presented) The method according to Claim ~~42~~ in which the solid phase is formed on a wall of a well in a sample carrier.

11 Claim ~~13~~ (previously presented) The method according to Claim ~~12~~ in which the carrier is a micro-titre or nano-titre plate.

13 Claim ~~14~~ (previously presented) The method according to Claim ~~12~~ in which the well has a quadratic, cylindrical, truncated pyramid or truncated cone shape.

14 Claim ~~15~~ (previously presented) The method according to Claim ~~12~~ in which the well has an aperture area and a floor area, the aperture area being smaller than the floor area.

15 Claim ~~16~~ (previously presented) The method according to Claim ~~15~~ in which the well has a truncated pyramid or truncated cone shape.

Claims 17 - 18 (canceled)

16 Claim ~~19~~ (previously presented) The method according to Claim ~~42~~ in which the measurement signal is obtained by spatially staggered measurement.

Claim 20 (canceled)

17 Claim ~~21~~ (previously presented) The method according to Claim ~~42~~ in which a light beam is used to excite the sample, said light beam having a diameter of less than 40 μm .

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Claim 22 (canceled)

18 Claim ~~23~~ (previously presented) The method according to Claim ~~21~~ in which a laser provides the light beam.

Claims 24 – 32 (canceled)

7 Claim ~~33~~ (previously presented) The method according to Claim ~~31~~ in which the volume is in the range of 50 to 100 nl.

12 Claim ~~34~~ (previously presented) The method according to Claim ~~32~~ in which the sample carrier is a nano-titre plate.

20 Claim ~~35~~ (previously presented) The method according to Claim ~~42~~ in which the quenching substance is a metal, dye or fluorescence-quenching substance.

19 Claim ~~36~~ (previously presented) The method according to Claim ~~23~~ in which the light beam has a diameter of about 20 μm .

Claims 37 – 41 (canceled)

1 Claim ~~42~~ (previously presented) A method for quantitative or qualitative determination of an analyte comprising:
(a) incubating a sample containing the analyte with a ^{predetermined amount of} labeled competitive substance and a solid phase coated with a quenching substance, wherein the solid phase further comprises an analyte-specific bonding partner immobilized thereto, such that the analyte and the labeled competitive substance compete for binding to the analyte-specific bonding partner, wherein the quenching substance suppresses signal from the labeled competitive

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substance bound to the solid phase;

(b) exciting the sample so as to generate signal from unbound labeled competitive substance; and

(c) measuring the signal only generated from the unbound labeled competitive substance in a ~~defined~~^{segment} volume of liquid phase, thereby quantitatively or qualitatively determining the analyte, wherein the determination of the analyte is performed or effected without physically separating the unbound and bound labeled competitive substance.

2 Claim ~~43~~ (previously presented) The method according to Claim ~~42~~¹, wherein the quenching substance is gold, silver or graphite.

3 Claim ~~44~~ (previously presented) The method according to Claim ~~42~~¹, wherein the labeled competitive substance is selected from the group consisting of antigen, antibody, nucleic acid, ligand or receptor.

Claims 45-59 (canceled)

21 Claim ~~60~~ (previously presented) A method for qualitative determination of an analyte comprising:

(a) incubating a sample containing the analyte with a labeled competitive substance and a solid phase coated with a quenching substance, wherein the solid phase further comprises an analyte-specific bonding partner immobilized thereto, such that the analyte and the labeled competitive substance compete for binding to the analyte-specific bonding partner, wherein the quenching substance suppresses signal from the labeled competitive substance bound to the solid phase;

(b) exciting the sample so as to generate signal from unbound labeled competitive substance; and

(c) measuring the signal only generated from the unbound labeled competitive substance, thereby qualitatively determining the analyte, wherein the determination of the analyte is

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performed or effected without physically separating the unbound and bound labeled competitive substance.

21
22 Claim ~~61~~ (previously presented) The method according to Claim ~~60~~, wherein the signal generated from the unbound labeled competitive substance is measured in a defined ^{segment} volume of liquid phase.

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24 Claim ~~62~~ (new) The method according to Claim ~~60~~ in which the analyte comprises a nucleic acid.

21
25 Claim ~~63~~ (new) The method according to Claim ~~60~~, wherein the labeled competitive substance is selected from the group consisting of antigen, antibody, nucleic acid, ligand or receptor.

25
26 Claim ~~64~~ (new) The method according to Claim ~~60~~ in which the method is an immuno-affinity assay.

21
27 Claim ~~65~~ (new) The method according to Claim ~~60~~ in which the analyte determination is performed or effected in a volume of less than 1 μ l.

21
29 Claim ~~66~~ (new) The method according to Claim ~~60~~ in which the labeled competitive substance is a fluorescent labeled reagent.

21
30 Claim ~~67~~ (new) The method according to Claim ~~60~~ in which the sample is in a liquid phase.

21
31 Claim ~~68~~ (new) The method according to Claim ~~60~~ in which the solid phase is formed on a wall of a well in a sample carrier.

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³¹
~~32~~ Claim ~~69~~ (new) The method according to Claim ~~68~~ in which the sample carrier is a micro-titre or nano-titre plate.

³¹
~~34~~ Claim ~~70~~ (new) The method according to Claim ~~68~~ in which the well has a quadratic, cylindrical, truncated pyramid or truncated cone shape.

³¹
~~35~~ Claim ~~71~~ (new) The method according to Claim ~~68~~ in which the well has an aperture area and a floor area, the aperture area being smaller than the floor area.

³⁵
~~36~~ Claim ~~72~~ (new) The method according to Claim ~~71~~ in which the well has a truncated pyramid or truncated cone shape.

²¹
~~37~~ Claim ~~73~~ (new) The method according to Claim ~~68~~ in which the measurement signal is obtained by spatially staggered measurement.

²¹
~~38~~ Claim ~~74~~ (new) The method according to Claim ~~68~~ in which a light beam is used to excite the sample, said light beam having a diameter of less than 40 μm .

³⁸
~~39~~ Claim ~~75~~ (new) The method according to Claim ~~74~~ in which a laser provides the light beam.

²⁷
~~28~~ Claim ~~76~~ (new) The method according to Claim ~~65~~ in which the volume is in the range of 50 to 100 nl.

³²
~~33~~ Claim ~~77~~ (new) The method according to Claim ~~69~~ in which the sample carrier is a nano-titre plate.

²²
~~23~~ Claim ~~78~~ (new) The method according to Claim ~~61~~ in which the quenching substance is a metal, dye or fluorescence-quenching substance.

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40 Claim ~~75~~ (new) The method according to Claim 75 in which the light beam has a diameter of about 20 μm .

41 Claim ~~80~~ (new) The method according to Claim 60, wherein the quenching substance is gold, silver or graphite.